

lay, August 6, 1999

List of Contractors

Subject: List of Contractors

Date: Fri, 6 Aug 1999 11:45:17 -0400

From: "Conroy, David (David)" <dconroy@lucent.com>

To: jonjones@acboe.org

on,

he following contractors have Master Construction Agreements with Lucent
echnologies and are presently working on the Atlantic City project.

liver Communications Group, Inc.
457 Old York Road
ordentown, NJ 08505

ricomm Services Corporation
1 Beverly Rancocas Road
illingboro, NJ 08046

astern Utility Service, Inc.
5 Main Street
roveville, NJ 08857

lanticom
27 Rt. 206 Suite 16B
amilton, NJ 08610

iburban Cable
10 Cresson Boulevard
) Box 989
uks, PA 19456

00079

MICRO TECHNOLOGY GROUP
Atlantic City Wire Proposal:

Scope of Work



Final Mile Technologies

**Specializing in Network Planning and Design, Fiber Optics, Data & Voice
Cabling for Networks**

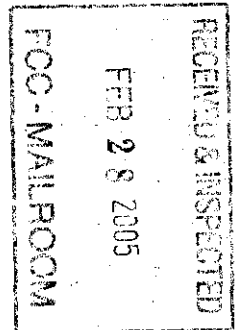
Who Is Final Mile Technologies?

Final Mile Technologies is a full services telecommunications company based in Southeastern Pennsylvania specializing in Fiber Optic, Voice and Data Communications. We provide expert data construction cabling and also staff several systems engineers. Our staff possesses the leading industry certifications resulting in actual "turn key" business solutions for your network. Good and reliable cable installers should consider your voice and data requirements in tandem. This approach coupled with a working knowledge of your LAN, WAN and PBX systems gives us the edge in providing your business with the highest services and solutions.

Mission

To enhance the competitive advantage of our clients through the strategic planning and design of their data construction cabling system. We recognize that if one end user is standing alone then the whole company may be too. Building your company's data cabling system resulting in seamless network connectivity forms a partnership that translates in to mutual and residual benefits. *Making your company the best makes us the best!*

Prepared By: Qasim Rashad
Final Mile Technologies ©
1502 Catharine Street
UBSC Suite 201
Phila., PA 19146
Phone (215) 985-9420 Ext 35



JANUARY 27, 2003

PROJECT SCOPE

MTG has requested a project proposal for FMT to provide estimates for the project planning and installation of data cabling for their client, Atlantic City School District. Note, as a subcontractor to the Primary (MTG) this Assignment Agreement is based on MTG being awarded the contract. FMT will report all work related issues to MTG. FMT will provide Project Management, Technical Services and premise wiring resources for this assignment.

Specifically, FMT will provide complete horizontal data cabling to six elementary schools and upgrade four high schools. In the elementary schools because of the older construction wire molding and raceway will be implemented. There will be a total of one thousand eight hundred fifty (1,850) drops in the following areas:

CAT5e	Drops
New Jersey	250
Ohio	250
Indiana	250
Richmond	250
Brighton	250
Texas	250
Uptown	100
Venice Park	75
MLK	100
Chelsea Heights	75
Total	1,850

On the first floor of each location panels and enclosures in an MDF additional floor will have an IDF

Each IDF will terminate into a seven-

strip, Plexiglas door, removable side panel, vented rear door, and castors or levelers. In the IDF, FMT will install a series of 48-port patch panel devices with wire management bars. The IDF will be connected to the MDF (Main Distribution Frame) via a six-strand riser rated multi mode fiber backbone or CAT5e copper. All cabling will be in accordance with ANSI/EIA/TIA 568 A standards. FMT will install and/or provide the following hardware configuration:

- Forty (40) AMP 48-port port patch panels
- Thirty (30) seven foot enclosure
- One thousand eight hundred fifty (1,850) Category 5e drops in locations as designated by MTG
- One thousand eight hundred fifty (1,850) Category 5e RJ45 jacks
- 6-strand multimode fiber or high speed copper back bones in locations designated by MTG
- Testing, labeling and certification

R E S P O N S I B I L I T I E S

FMT

- Provide project management and technical services
- Install neat and orderly cable paths
- Policing and clean up of all work areas
- Report to client any possible critical system failures

ACSD:

- Physical access to facilities and hardware
- Necessary security clearance
- Sufficient work space to perform job tasks
- Single point of contact

D E L I V E R A B L E S

- Data cabling to designated areas located in Atlantic City School District
- Wire management and patch panel
- Project management and technical expertise
- Testing, Labeling and Certification
- Status Reports

A S S U M P T I O N S

- FMT employees will be provided workspace including access to a phone.
- ACSD recognizes the change order process required to alter the scope of the original project.
- Atlantic City School District provides corporate access to all facilities as related to this proposal.
-

JANUARY 27, 2003

PROJECT STAFFING

Final Mile Technologies will provide the services of:

- Operations Manager: The certified installation of complete systems solutions
- Project Manager: For design and configuration of complete systems solutions, daily status reports, single point of contact
- Data Cabling Technician(s)

Schools		Costs
Elementary Schools (not upgraded)		\$336,000
<hr/>		
Upgraded Schools	\$39,200	
Enclosures	\$67,200	
Total	\$442,400.00	

Note, upgraded schools refer to: MLK, Uptown Complex, Chelsea Heights. Not upgraded refer to New Jersey, Ohio, Indiana, Richmond Avenue, Brighton Avenue, Texas and Venice Park.

You can add or delete the number of network drops based upon the per drop price listed below.

The per drop price for the upgraded schools is **\$168.00**

The per drop price for the schools that have not been upgraded is **\$224.00**. This includes using wire mold and race way.

Standards

Cabling Installation Manual 1st edition, © 1997 BICSI •

Background Information

ANSI/TIA/EIA publishes standards for the manufacturing, installation, and performance of electronic and telecommunications equipment and systems. Five of these ANSI/TIA/EIA standards govern telecommunications cabling in buildings. Each standard covers a specific part of building cabling. They address the required cable, hardware, equipment, design and installation practices. In addition, each ANSI/TIA/EIA standard lists related standards and other reference materials that deal with the same topics. Most of the standards MTGlude sections, which define important terms, acronyms, and symbols. The five ANSI/TIA/EIA standards, which govern telecommunications cabling in buildings, are:

- **ANSI/TIA/EIA-568-A**, Commercial Building Telecommunications Cabling Standard
- **ANSI/EIA/TIA-569**, Commercial Building Standard for Telecommunications Pathways and Spaces
- **ANSI/EIA/TIA-570**, Residential and Light Commercial Telecommunications Wiring Standard
- **ANSI/TIA/EIA-606**, Administration Standard for the Telecommunications Infrastructure of Commercial Buildings
- **ANSI/TIA/EIA-607**, Commercial Building Grounding and Bonding Requirements for Telecommunications

Attachment

3

E-rate Contract

Contract # Y1-00100AC

This contract is based on the funding commitment from Schools and Library Division (SLD) of the Universal Service Administrative Company (USAC). The commitment made here is contingent on the school entity being approved for funding by the receipt of a Funding Commitment Decision Letter from the USAC for the requested amount. If funding is reduced, the school has the option of reducing the scope of the contract accordingly. If, for any reason, funding is denied, this agreement would then be null and void.

MTG requires the school to file their Form 486 as soon as possible after E-rate approval is granted. MTG will not process any orders until the SLD approves the 486 and notifies MTG that the 486 has been processed.

MTG will notify the school when the 486 is processed to begin the order process. MTG requires a valid school purchase order and a deposit before any products or services are delivered.

The deposit comprises the schools' 10% of the eligible and 100% of the ineligible product.

Any products or services that are not paid by USAC and/or SLD upon receipt of an invoice from MTG must be paid by the school.

SLD Form# —

678310000481953

4/HS through district

Please check the following products and services the school wishes to submit for E-rate approval:

Qty.	Description	Unit Price	Extended Price	Check Here:
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AGREEMENTS/WARRANTIES

LAN Maintenance Agreement

Qty.	Description	Unit Price	Extended Price
1	LAN Maintenance Agreement for 650 on-site hours on All E-rate Eligible Servers, Switches, Wireless Access points, UPS units, Back up Drives.		\$ 74,750.00

650f chassis & 3738's

Extended Warranties for Existing Equipment

Qty.	Description	Unit Price	Extended Price
12	One Year Smartnet Maintenance 8x5xNext Business Day on the 6509	\$ 8,320.00	\$ 99,840.00
82	One Year Smartnet Maintenance 8x5xNext Business Day on the 6509	\$ 728.00	\$ 59,696.00

CISCO

Qty.	Description	Unit Price	Extended Price
Note - the school has two Watchguard Firebox 4500 Firewall units, which are eligible under E-rate Year 7. The hardware warranty and software support for one year is covered.			
2	Watchguard Extended Warranty 1 Year Express for Firebox 4500 - Hardware	\$ 530.00	\$ 1,060.00
2	Watchguard Extended Warranty 1 Year Express for Firebox 4500 - Software	\$ 1,150.00	\$ 2,300.00

Equipment

PVBX

PVBX Video Equipment

All products listed below are eRate eligible. School will need to purchase non-eligible products such as TVs, VCRs, and cameras.

There are 6 PVBX systems and related accessories in the pricing listed below. There were 165 nodes requested in the bid documents.

Qty.	Description	Unit Price	Total Price
6	32x32 PVBX Switch	\$ 33,575.00	\$ 201,450.00
192	Video Modulator Pair	\$ 170.00	\$ 32,640.00
192	Video Modulator Supply	\$ 255.00	\$ 48,960.00
6	Rack System	\$ 850.00	\$ 5,100.00
18	Agile Modulator	\$ 298.00	\$ 5,364.00
6	Back up UPS APC 2200 RM3U	\$ 964.00	\$ 5,784.00
6	Complete Installation of the PVBX System by Certified MTG Engineers	\$ 3,500.00	\$ 21,000.00

Maintenance Agreement

1	Maintenance Agreement for All Year 6 E-rate eligible PVBX Video Products 90 Hours of On-site support will be provided with this Maintenance Agreement	\$	12,000.00
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LAN CABLING AND ELECTRONICS

HS VPEV
165 nodes

162,896.00

45

332,298.9

007320

Attachment 3

Wireless LAN for 106 areas

Qty.	Description	Unit Price	Extended Price
	We understand there are 106 areas to be covered with Access points. We highly recommend a Configuration Study to determine the best locations of the Access points. This will maximize wireless coverage.		
106	Cisco Aironet 802.1G Access point	\$ 659.00	\$ 69,854.00
212	Cisco 2.2 Gbi dipole Antenna	\$ 14.30	\$ 3,031.60
	2 antennas are required for each access point.		
106	Cisco Smartnet Maintenance - One Year for Wireless Access point	\$ 56.75	\$ 6,015.50
106	Installation Services by our Authorized Cisco Systems Engineer	\$ 250.00	\$ 26,500.00
	This installation includes the configuration charge by MTG to determine the best location and configuration of the Wireless Access points. This will maximize the effectiveness of the wireless equipment.		

MLK Wireless Connection

1	Wireless connection to the modulators for MLK	\$ 11,995.00	\$ 11,995.00
	This includes: 5 Wireless base units, five antennas, mounting equipment.		
4	Cisco Catalyst 3750 12 SFP Standard Multilayer Image WS-C3750G-12S-S	\$ 5,475.00	\$ 21,900.00
4	Cisco Smartnet Level 8 8x5xNext Business Day - One Year	\$ 595.00	\$ 2,380.00
4	APC SmartUPS PowerStack 250 rack mount UPS	\$ 190.00	\$ 760.00
1	Installation		\$ 6,000.00
	Note - this is only for the wireless connection to the 4 modulators. It does not include the cabling requested within the modular units.		
	Note - the wiring bidder must provide a deep cabinet in order house the switch, UPS, in addition to the wiring patch panel.		

48-Port Switches

Qty.	Description	Unit Price	Extended Price
8	Catalyst 3750 48 10/100 + 4 SFP Standard Multilayer Image	\$ 4,795.00	\$ 38,360.00
8	GE SFP, LC connector SX transceiver	\$ 350.00	\$ 2,800.00
1	Installation by our Cisco Certified Engineer		\$ 5,000.00

Routers - We do not feel they are needed by the district.

Equipment Rack - Qty. 2

Qty.	Description	Unit Price	Extended Price
2	APC Netshelter VX Base Enclosure Rack	\$ 1,666.00	\$ 1,666.00
2	APC Blanking panel kit	\$ 61.00	\$ 61.00
2	APC Roof fan tray	\$ 308.00	\$ 308.00
2	APC Rack mount LCD Monitor/keyboard drawer	\$ 1,902.00	\$ 1,902.00
2	Belkin Omniview 8 port KVM switch	\$ 329.00	\$ 329.00
16	Belkin 10 foot PS2 KVM cable set	\$ 44.00	\$ 176.00
2	Installation of 2 APC racks and associated equipment by our APC-trained Engineer		
	NOTE: This UPS requires a 120 V 30 amp twist lock plug. This is not Erate eligible. Please consult with your electrician for the installation of that plug.		

UPS - Qty. 10

Qty.	Description	Unit Price	Total Price
10	American Power Conversion SmartUPS 3000Va	\$ 1,325.00	\$ 13,250.00
10	APC Battery Pack	\$ 615.00	\$ 6,150.00
10	Installation	\$ 250.00	\$ 2,500.00
	NOTE: This UPS requires a 120 V 30 amp twist lock plug. This is not Erate eligible. Please consult with your electrician for the installation of that plug.		

Wireless Network Interface Cards

The Form 470 request 60 wireless cards. You can get either PCMCIA (for laptop computers) and PCI cards (for desktop computers with a PCI slot). We have priced 50 of both. If the SLD deems the card is eligible, however at less than 100%, the school is responsible for 100% of the ineligible portion, plus 10% of the eligible portion.

Qty.	Description	Unit Price	Total Price
60	PCI Network Interface cards	\$ 233.00	\$ 13,980.00
60	Installation of Wireless Network card	\$ 250.00	\$ 15,000.00

Wireless access points for 35 mobile units - "NO BID"

007321

10854

Attached 3

NON ERATE ELIGIBLE

Since the district is looking at implementing wireless on a large scale, we recommend a wireless study for each building.

I do not believe this is Erate eligible, but defer to the expertise of the districts' Erate consultant.

Qty.	Description
9	Building-wide Wireless Site Survey

Unit Price	Total Price
\$ 1,500.00	\$ 13,500.00

As an Authorized Agent of Atlantic City Schools, we Accept this proposal

Signature of Authorized Agent

1-22-04
Date

Signature of Authorized Agent of MICRO Technology Groupe, Inc.

1-9-04
Date

Please check where applicable, sign, date, and fax to:
MICRO Technology Groupe
311A Old Rodgers Road
Bristol, PA 19007
FAX: 877-329-9684

007322

A Hackmount 3

6 x 1" Hot Pluggable Hard Drive Bays
Qty. 3 36.4GB Pluggable Ultra320 SCSI 10,000 rpm Universal Hard Drive (1")
1.44MB Floppy Disk Drive
48X CD-ROM drive
Compaq NC7781 PCI-X Gigabit NIC (embedded) 10/100/1000 WOL (Wake on LAN)
Hot Plug Redundant Power Supply 225075-001
Hot Plug Redundant Fan 225073-B21
SmartStart & Insight Manager
Integrated Lights-Out (ILO) Management (ASIC on motherboard)
Warranty - 3 year Next Business Day Onsite

12	Installation of DNS/DHCP Servers	\$ 2,500.00	\$ 30,000.00	
12	Microsoft Server 2003 Academic License, SA	\$ 174.00	\$ 2,088.00	

MTG Recommendation

The district currently has a Microsoft Exchange Server. We feel this is a suitable server to handle the district Email. It is our recommendation the district purchase 3 Web servers and 4 DNS/DHCP Servers for a total of 7 servers.

Tape Backup Units

The bid asks for 12 Backup drives. See that pricing below. We have made a recommendation, see that at the end.

Qty.	Description	Unit Price	Total Price	
12	HP Storageworks SOLT 220 3U Rack-mount, One drive 274331-B21	\$ 4,654.00	\$ 55,848.00	
12	LVD SCSI cable 168048-B21	\$ 157.00	\$ 1,884.00	
12	Rack kit 280571-001	\$ 170.00	\$ 2,040.00	

Back UP Software

12	Back UP Exec, Academic with One year Maintenance	\$ 508.00	\$ 6,096.00	
25	Back Up Exec, Academic Server Agent with One year Maintenance	\$ 148.00	\$ 3,700.00	
25	Back Up Exec, Academic Exchange Agents with One year Maintenance	\$ 620.00	\$ 15,500.00	
12	Back Up Exec, Agent for Open File with One year Maintenance	\$ 559.00	\$ 6,708.00	
12	Installation of Back up Drive with Software	\$ 1,000.00	\$ 12,000.00	

MTG Recommendation

We recommend getting two HP Storageworks MSL6030 tape libraries.

Qty.	Description	Unit Price	Extended Price	
2	HP Storageworks MSL6030 2 drive LTP Ultrium 460 rackmount library - 330731-B23	\$ 24,786.00	\$ 49,572.00	
2	SCSI cables	\$ 82.00	\$ 164.00	
2	Back UP Exec, Academic with One year Maintenance	\$ 508	\$ 1,016.00	
5	Back Up Exec, Academic Server Agent with One year Maintenance	\$ 148.00	\$ 740.00	
1	Back Up Exec, Academic Exchange Agents with One year Maintenance	\$ 620.00	\$ 620.00	
2	Back Up Exec, Agent for Open File with One year Maintenance	\$ 559.00	\$ 1,118.00	
2	MTG Installation	\$ 2,500.00	\$ 5,000.00	

NOTE - quantity of backup software listed above is based on our recommendation of 7 servers.

The Following is not Erata eligible

Qty.	Description	Unit Price	Extended Price	
10	HP magazine - 301902-B21	\$ 389.00	\$ 3,890.00	
20	HP 400 GB Ultrium data cartridge	\$ 81.00	\$ 1,620.00	

PVBX

Note - this is for 12 PVBX units. You can scale the quantities accordingly.

Qty.	Description	Unit Price	Extended Price	
		Unit Price	Total Price	
12	32x32 PVBX Switch	\$ 33,575.00	\$ 402,900.00	X
384	Video Modulator Pair	\$ 170.00	\$ 65,280.00	X
384	Video Modulator Supply	\$ 255.00	\$ 97,920.00	X
12	Rack System	\$ 850.00	\$ 10,200.00	X
36	Agile Modulator	\$ 298.00	\$ 10,728.00	X
12	Back up UPS APC 2200 RM3U	\$ 964.00	\$ 11,568.00	X
12	Complete Installation of the PVBX System by Certified MTG Engineers	\$ 3,500.00	\$ 42,000.00	X

Maintenance Agreement

1	Maintenance Agreement for All Year 6 Erata eligible PVBX Video Products 90 Hours of On-site support will be provided with this Maintenance Agreement	\$ 12,000.00		X
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Firewall Server/Router - 12

We do not recommend the district purchase any additional firewall servers or routers. The appropriate equipment is currently in place in the district.

007324

Attachment 3

LAN CABLEING AND ELECTRONICS

Wireless LAN = 20 Areas (40 Nodes)

Qty.	Description	Unit Price	Extended Price
We understand there are 20 areas to be covered with Access points. We highly recommend a Configuration Study to determine the best locations of the Access points. This will maximize wireless coverage. The configuration study is included in our install price below.			
40	Cisco Aironet 802.1G Access point	\$ 659.00	\$ 26,360.00
80	Cisco 2.2 Gbi dipole Antenna	\$ 14.30	\$ 1,144.00
2 antennas are required for each access point.			
40	Cisco Smartnet Maintenance - One Year for Wireless Access point	\$ 56.75	\$ 2,270.00
40	Installation Services by our Authorized Cisco Systems Engineer	\$ 450.00	\$ 18,000.00
This installation includes the configuration charge by MTG to determine the best location and configuration of the Wireless Access points. This will maximize the effectiveness of the wireless equipment.			

Wireless Network Interface Cards

The Form 470 request 50 wireless cards. You can get either PCMCIA (for laptop computers) and PCI cards (for desktop computers with a PCI slot). We have priced 50 of both. If the SLD deems the card is eligible, however at less than 100%, the school is responsible for 100% of the ineligible portion, plus 10% of the eligible portion.

Qty.	Description	Unit Price	Total Price
50	PCI Network Interface cards	\$ 233.00	\$ 11,650.00
50	Cisco PCI Network Interface cards	\$ 250.00	\$ 12,500.00
50	Installation of 50 Wireless Network cards		\$ 9,234.00

UPS - Qty. 12

Qty.	Description	Unit Price	Total Price
12	American Power Conversion SmartUPS 3000Vx	\$ 1,325.00	\$ 15,900.00
12	APC Battery Pack	\$ 615.00	\$ 7,380.00
12	Installation	\$ 250.00	\$ 3,000.00
NOTE: This UPS requires a 120 V 30 amp twist lock plug. This is not Erate eligible. Please consult with your electrician for the installation of that plug.			

Equipment Rack - Qty. 12

Qty.	Description	Unit Price	Extended Price
12	APC Netshelter VX Base Enclosure Rack	\$ 1,666.00	\$ 1,666.00
12	APC Blanking panel kit	\$ 61.00	\$ 61.00
12	APC Roof fan tray	\$ 308.00	\$ 308.00
12	APC Rack mount LCD Monitor/keyboard drawer	\$ 1,902.00	\$ 1,902.00
12	Belkin Omniview 8 port KVM switch	\$ 329.00	\$ 329.00
12	Belkin 10 foot PS2 KVM cable set	\$ 44.00	\$ 176.00
96	Belkin 10 foot PS2 KVM cable set	\$ 1,000.00	\$ 176.00
12	Installation of 12 APC racks and associated equipment by our APC-trained Engineer		

LAN Electronics

Qty.	Description	Unit Price	Extended Price
12	Cat 6509 Chassis, 9 slot, 15RU, No Pow Supply, No Fan Tray	\$ 6,495.00	\$ 77,940.00
11	Catalyst 6000 8-port GE, Enhanced QoS (Req. GBICs)	\$ 6,850.00	\$ 75,350.00
12	PKG, PWR SPLY INSERT, CAT 5500	Included	
34	Catalyst 6000 Blank Line Card Slot Cover	\$ 38.00	\$ 1,292.00
15	Catalyst 6500 Supervisor Engine-2, 2 GB, plus MSFC-2/PFC-2	\$ 15,100.00	\$ 226,500.00
12	Catalyst 6500 16-port Gig/Copper Module, x-bar	\$ 11,595.00	\$ 139,140.00
120	1000Base-LX/LH long haul GBIC (singlemode or multimode)	\$ 695.00	\$ 83,400.00
24	1000Base-SX Short Wavelength GBIC (multimode only)	\$ 365.00	\$ 8,760.00
24	Catalyst 6000 2500W AC Power Supply	\$ 2,075.00	\$ 49,800.00
12	Catalyst 6000 Fan Tray for 9-Slot Systems	\$ 360.00	\$ 4,320.00
24	AC POWER CORD NORTH AMERIZ (110V)	\$ 20.00	\$ 480.00
12	Catalyst 6000 Sup 2 Flash Image w/SSH, Rel 8.1	Included	
15	Catalyst 6000 MSFC2 IOS SERVICE PROVIDER W/VIP	Included	
15	Catalyst 6000 Sup2 Mem, 128 MB DRAM Option	\$ 1,250.00	\$ 43,750.00
35	Catalyst 6500 48-port 10/100, RJ-45, x-bar	Included	
15	Catalyst 6000 MSFC-2 Mem, 128MB DRAM Option	\$ 4,795.00	\$ 393,190.00
82	Catalyst 3750 48 10/100 + 4 SFP Standard Multilayer Image	\$ 350.00	\$ 1,050.00
3	GE SFP, LC connector SX transceiver	Included	
82	Cisco StackWise 50CM Stacking cable	\$ 13,750.00	\$ 41,250.00
3	Catalyst 6500 16-port Gige Mod: Fabric-Enabled (Req. GBICs)	\$ 350.00	\$ 14,000.00
40	GE SFP, LC connector SX transceiver		
One Year Smartnet Maintenance			
12	One Year Smartnet Maintenance 8x5xNext Business Day on the 6509	\$ 8,320.00	\$ 99,840.00
82	One Year Smartnet Maintenance 8x5xNext Business Day on the 3750	\$ 728.00	\$ 59,696.00

007325

Attachment 3

- 1 Installation of the Cisco equipment listed above by our Cisco Certified Engineer

\$ 74,000.00

Recommended Addition to the Proposal

- 1 Design and Engineering Study
This will assess the network needs of the district which will allow for the proper deployment of Erata equipment. This includes mapping of network electronics and servers purchased under the Erata program.

\$ 20,000.00

NOTE - Erata Eligibility of a Design and Engineering Study:
In previous years, Design and Engineer studies were Erata eligible. I do not believe it is eligible in Year 7, but defer to the expertise of the Erata consultant hired by the district.

Non Erata Eligible equipment:

Qty.	Description	Unit Price	Extended Price
24	5 pack of SOLT Media	\$ 561.00	\$ 13,464.00
30	Cleaning cartridges	\$ 78.00	\$ 2,340.00
12	APC SNMP card for SmartUPS 3000Va (Allow for graceful shut down of servers during power outages.	\$ 250.00	\$ 3,000.00

As an Authorized Agent of Atlantic City Schools, we Accept this proposal

Signature of Authorized Agent

Signature of Authorized Agent of MICRO Technology Groups, Inc.

1-22-04
Date

1-9-04
Date

Please check where applicable, sign, date, and fax to:
MICRO Technology Groups
311A Old Rodgers Road
Bristol, PA 19007
FAX: 877-329-9684

007326

MICRO Technology Groupe, Inc.
a division of MAC Technology Groupe, Inc.

Suite H
3580 Progress Drive
Bensalem, PA 19020

215.245.8144

Fax 215.245.5116

www.mtgroupe.com

Attachment 6



January 30, 2003

Mr. Martin Friedman
442 Lyndhurst Drive
Broomall, PA 19008

Dear Mr. Friedman,

MICRO Technology Groupe, Inc. (MTG) is pleased to submit this comprehensive proposal for the Atlantic City Board of Education Year 6 E-rate application.

We have proposed a solution for internal connections. This includes: cabling, network electronics, servers, and video. It also includes installation costs, maintenance agreements, and engineering costs.

We have used hardware from Cisco Systems and Compaq (HP) for the servers and network electronics. As you are aware, Cisco and Compaq are widely recognized as leaders in the technology industry.

We have configured the servers as per the bid specifications.

We feel the wiring in many of the schools should be replaced. We are not willing to provide any LAN Enhancements using the existing wiring in those schools. We have provided prices to rewire (or add wiring) to the buildings. There is a per drop price for a cable run which will allow you to make any add/deletes to the number of runs that we propose.

We understand the district has two-pair fiber optic cable from each school building to the Dr. Martin Luther King School Complex. We propose to use this fiber as the districts' Wide Area Network links. We propose two Cisco Catalyst 6509 switches to provide redundant WAN connection.

Further, we propose Cisco Catalyst 6506 switches in each school building with Cisco Catalyst 2950 stackable switches in the various network closets.

Please be aware there are a few issues the district must address. They include providing adequate environmental conditions in the wiring closets and providing proper electrical power in the buildings. We do not believe these services are eligible under Year 6 of the E-rate program. MTG can provide the names of companies who offer such services.

MTG has been providing technology solutions to schools and businesses since 1989. We offer the highest quality of support on both the Windows and Macintosh platforms. We understand the district uses a mix of Windows and Mac OS computers. We believe we can partner with the district to become a reliable and valued Systems Integrator.

We would appreciate to speak with you and the district regarding our complete proposal. I can be reached at (877) 366-3684 ext. 385. Please be aware, we recently moved our company headquarters to 311A Old Rodgers Road, Bristol, PA 19007. We can be reached on the web at www.mtgroupe.com.

Thank you for your time and courtesy.

Regards,

Richard D. Linkhorst
Account Executive

Attachment
6
MICRO TECHNOLOGY GROUP

Atlantic City Wire Proposal:

Scope of Work



Final Mile Technologies

Specializing in Network Planning and Design, Fiber Optics, Data & Voice
Cabling for Networks

Who Is Final Mile Technologies?

Final Mile Technologies is a full services telecommunications company based in Southeastern Pennsylvania specializing in Fiber Optic, Voice and Data Communications. We provide expert data construction cabling and also staff several systems engineers. Our staff possesses the leading industry certifications resulting in actual "turn key" business solutions for your network. Good and reliable cable installers should consider your voice and data requirements in tandem. This approach coupled with a working knowledge of your LAN, WAN and PBX systems gives us the edge in providing your business with the highest services and solutions.

Mission

To enhance the competitive advantage of our clients through the strategic planning and design of their data construction cabling system. We recognize that if one end user is standing alone then the whole company may be too. Building your company's data cabling system resulting in seamless network connectivity forms a partnership that translates in to mutual and residual benefits. *Making your company the best makes us the best!*

Prepared By: Qasim Rashad
Final Mile Technologies ©
1502 Catharine Street
UBSC Suite 201
Phila., PA 19146
Phone (215) 985-9420 Ext 35

PROJECT SCOPE

MTG has requested a project proposal for FMT to provide estimates for the project planning and installation of data cabling for their client, Atlantic City School District. Note, as a subcontractor to the Primary (MTG) this Assignment Agreement is based on MTG being awarded the contract. FMT will report all work related issues to MTG. FMT will provide Project Management, Technical Services and premise wiring resources for this assignment.

Specifically, FMT will provide complete horizontal data cabling to six elementary schools and upgrade four high schools. In the elementary schools because of the older construction wire molding and raceway will be implemented. There will be a total of one thousand eight hundred fifty (1,850) drops in the following areas:

CAT5e	Drops
New Jersey	250
Ohio	250
Indiana	250
Richmond	250
Brighton	250
Texas	250
Uptown	100
Venice Park	75
MLK	100
Chelsea Heights	75
Total	1,850

On the first floor of each location panels and enclosures in an MDF additional floor will have an IDF Each IDF will terminate into a seven-

strip, Plexiglas door, removable side panel, vented rear door, and castors or levelers. In the IDF, FMT will install a series of 48-port patch panel devices with wire management bars. The IDF will be connected to the MDF (Main Distribution Frame) via a six-strand riser rated multi mode fiber backbone or CAT5e copper. All cabling will be in accordance with ANSI/EIA/TIA 568 A standards. FMT will install and/or provide the following hardware configuration:

- Forty (40) AMP 48-port port patch panels
- Thirty (30) seven foot enclosure
- One thousand eight hundred fifty (1,850) Category 5e drops in locations as designated by MTG
- One thousand eight hundred fifty (1,850) Category 5e RJ45 jacks
- 6-strand multimode fiber or high speed copper back bones in locations designated by MTG
- Testing, labeling and certification

Attachment 6

RESPONSIBILITIES

FMT

- Provide project management and technical services
- Install neat and orderly cable paths
- Policing and clean up of all work areas
- Report to client any possible critical system failures

ACSD:

- Physical access to facilities and hardware
- Necessary security clearance
- Sufficient work space to perform job tasks
- Single point of contact

DELIVERABLES

- Data cabling to designated areas located in Atlantic City School District
- Wire management and patch panel
- Project management and technical expertise
- Testing, Labeling and Certification
- Status Reports

ASSUMPTIONS

- FMT employees will be provided workspace including access to a phone.
- ACSD recognizes the change order process required to alter the scope of the original project.
- Atlantic City School District provides corporate access to all facilities as related to this proposal.
-

PROJECT STAFFING

Final Mile Technologies will provide the services of:

- Operations Manager: The certified installation of complete systems solutions
- Project Manager: For design and configuration of complete systems solutions, daily status reports, single point of contact
- Data Cabling Technician(s)

Schools		Costs
Elementary Schools (not upgraded)		\$336,000
Upgraded Schools	\$39,200	
Enclosures	\$67,200	
Total	\$442,400.00	

Note, upgraded schools refer to: MLK, Uptown Complex, Chelsea Heights. Not upgraded refer to New Jersey, Ohio, Indiana, Richmond Avenue, Brighton Avenue, Texas and Venice Park.

You can add or delete the number of network drops based upon the per drop price listed below.

The per drop price for the upgraded schools is **\$168.00**

The per drop price for the schools that have not been upgraded is **\$224.00**. This includes using wire mold and race way.

Standards

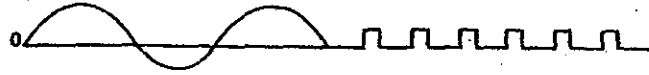
Cabling Installation Manual 1st edition, © 1997 BICSI •

Background Information

ANSI/TIA/EIA publishes standards for the manufacturing, installation, and performance of electronic and telecommunications equipment and systems. Five of these ANSI/TIA/EIA standards govern telecommunications cabling in buildings. Each standard covers a specific part of building cabling. They address the required cable, hardware, equipment, design and installation practices. In addition, each ANSI/TIA/EIA standard lists related standards and other reference materials that deal with the same topics. Most of the standards MTGlude sections, which define important terms, acronyms, and symbols. The five ANSI/TIA/EIA standards, which govern telecommunications cabling in buildings, are:

- **ANSI/TIA/EIA-568-A**, Commercial Building Telecommunications Cabling Standard
- **ANSI/EIA/TIA-569**, Commercial Building Standard for Telecommunications Pathways and Spaces
- **ANSI/EIA/TIA-570**, Residential and Light Commercial Telecommunications Wiring Standard
- **ANSI/TIA/EIA-606**, Administration Standard for the Telecommunications Infrastructure of Commercial Buildings
- **ANSI/TIA/EIA-607**, Commercial Building Grounding and Bonding Requirements for Telecommunications

Attachment
7



2658 N.W. Boulevard • Vineland, New Jersey 08360 • Office: (856) 691-5111 • Fax: (856)

January 7, 2004

Atlantic City Board of Education
1809 Pacific Ave
Atlantic City, NJ 08041

Re: SLD470- 526880000481973
Internal Cabling
Attention Alamar Consulting

Dear Martin:

Attached you will find an overview for the scope of work requested for the 470. ComTec Systems is submitting the cost for Internal Cabling as mentioned on the bid. We have reviewed the schools and have looked in depth at the request for work to be performed. Included as part of our proposals for all cabling projects are a number of issues that ComTec has taken into consideration when bidding for this work. These are very important items for the long term benefit of the Atlantic City School District and are in addition to those items requested in the formal bid package..

Goals

Clean up

- *Move all cabling into secure power poles or conduits that were running on floors*
- *Run new cables to main IDF or MDF for any areas that were not home-run*
- *Replace all copper backbone cables with fiber to connect IDF locations to MDF*
- *Install all Fiber interface modules in cabinets*

Security

- *Replacement of all racks and cabinets which are not in at least 18 inch deep and 24 inches in height.*

007330

ComTec Systems Inc

2658 NW Blvd
Vineland, NJ 08360 USA
Phone: (856) 691-5111 Fax: (856) 696-4666

A. Habnet

Quo

No. **301**
Date: **1/9/2004**

Prepared for

Atlantic City Board of Education
Administration Building
1809 Pacific Ave
Atlantic City, NJ 08401 U.S.A.

Prepared by Michael Verto

Account No. 2829
Account Phone: (609) 343-7200

Qty.	Item ID	ItemDescription	UOM	Sell	Tot
1	805008	INTERNAL CABLING	EA	562,000.000	\$562,000.00
	470# 526880000481973	DISTRICT WIDE CABLING			

Item Total: \$ 562,000.00

Total: \$ 562,000.00

Prices are firm until 1/23/2004

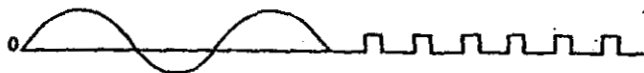
Quoted by: Michael Vertolli

Date: 1/9/2004

THIS CONTRACT IS BASED ON THE DISTRICT RECEIVING A FUNDING COMMITMENT LETTER FROM THE
SLD OF THE THE UNIVERSAL SERVICE ADMINISTRATIVE COMAPNY FOR THE REQUESTED AMOUNT.

Accepted by: *Michael Vertolli*Date: 1-22-04

If equipment is itemized above and does not include labor than ComTec will bill customer for all labor charges associated with its installation at ComTec prevailing rates. If this quote is a Change Order to an Installation, customer is bound by terms agreed upon in the Equipment Purchase Agreement. Any additional materials approved for installation by the customer which are not listed will be billed as Material used. If quote exceeds \$500.00 a 50% deposit may be required before proceeding with installation. Additional installments may also apply. Customer will sign for time spent on site upon completion of all projects. All equipment remains the property of ComTec Systems, Inc until paid in full



2658 N.W. Boulevard • Vineland, New Jersey 08360 • Office: (856) 691-5111 • Fax: (856)

January 7, 2004

Atlantic City Board of Education
1809 Pacific Ave
Atlantic City, NJ 08041

Re: 470# 678310000481953
Wire and Cable Maintenance
Attention Alamar Consulting

Dear Martin:

Attached you will find an overview for the scope of work requested for the 470. ComTec Systems is submitting the cost for Wire and Cable Maintenance. This includes:

- Data and connectivity
- Troubleshooting carrier issues
- Consulting
- Line trouble and circuit troubles
- Design and engineering
- Carrier delegation
- Removal and evaluation of services

600 Hours at \$125.00 per hour

Total cost \$75,000.00

SPIN # 143008185

If you have any questions, please feel free to contact me at 856-691-5111- ext 1158.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Vertolli".

Michael W Vertolli

ComTec Systems

F:\word\Netters\mike\sid470 maintenance-678310000481953

007328

ComTec Systems Inc

2658 NW Blvd
Vineland, NJ 08360 USA
Phone: (856) 691-5111 Fax: (856) 696-4666

Attachment
7

Quote

No. 3089
Date: 1/9/2004

Prepared for

Atlantic City Board of Education
Administration Building
1809 Pacific Ave
Atlantic City, NJ 08401 U.S.A.

Prepared by Michael Vertolli

Account No. 2829
Account Phone: (609) 343-7200

Qty.	Item ID	ItemDescription	UOM	Sell	Total
600	805008	WIRE MAINTENANCE	EA	125.000	\$75,000.00
	470# 678310000481953	INDIANA, MLK, RICHMOND CABLING			

Item Total: \$ 75,000.00

Total: \$ 75,000.00

Quoted by: Michael Vertolli

Date: 1/9/2004

* THIS CONTRACT IS BASED ON THE DISTRICT RECEIVING A FUNDING COMMITMENT LETTER FROM THE SLD OF THE THE UNIVERSAL SERVICE ADMINISTRATIVE COMPANY FOR THE REQUESTED AMOUNT.

Accepted by: *Michael Vertolli*

Date: 1-22-04

If equipment is itemized above and does not include labor than ComTec will bill customer for all labor charges associated with its installation at ComTec prevailing rates. If this quote is a Change Order to an Installation, customer is bound by terms agreed upon in the Equipment Purchase Agreement. Any additional materials approved for installation by the customer which are not listed will be billed as Material used. If quote exceeds \$500.00 a 50% deposit may be required before proceeding with installation. Additional installments may also apply. Customer will sign for time spent on site upon completion of all projects. All equipment remains the property of ComTec Systems, Inc until paid in full.

007329

VERTEX

TECHNOLOGIES, INC.

A TekConnect Company

Vertex Technologies Inc.
1 Keystone Avenue, Suite 700
Cherry Hill, NJ 08003
Voice: (800) 354-1519 Fax: (856) 834-1111

Atlantic City Public Schools
1809 Pacific Avenue
Atlantic City, NJ 08401
Attn: Martin Friedman

Proposal #: ATL01NJ-2000

January 6, 2004

Description	Qty	Price	Total
Atlantic City E-Rate Bid (Year 7)			
SLD Form #: 678310000481953			
Spin# 143011709			

Agreements/Warranties:

LAN Maintenance Agreement	650	\$85.00	\$55,250.00
All E-rate eligible Servers, Switches, Wireless AP's, UPS Units			
Backup drives - On-Site Support (All Buildings)			
Wire & Cable Maintenance		No Bid	No Bid
Telephone System Maintenance Agreement		No Bid	No Bid

On-Site Service Total: \$55,250.00

Cisco Switches:

Cisco Catalyst 2950G 48 Port Switch	8	\$2,809.00	\$22,472.00
Cisco SmartNET 8X5XNBD for Catalyst 2950g Switch	8	1st YR. FREE	1st YR. FREE

Equipment:

Codec plus Cabinet Install, Configuration, Warranty		No Bid	No Bid
Firewall Server / Router - 2		No Bid	No Bid
PVBX 165 Nodes		No Bid	No Bid
Distance Learning Units		No Bid	No Bid

APC Hardware:

APC SmartUPS 3000VA Rackmount	10	\$1,486.00	\$14,860.00
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Equipment Total: \$37,132.00

Horizontal Cabling (See Attached Scope):

Provide & Install 323 Cat5E Cables
Provide & Install 106 Cat5E Cables for Wireless Access
Install a CommScope plenum 4 pair Category 5e white cable
Provide and install (2) Chatsworth 84"x19" open bay racks
Provide and install (16) Siemon 24 port Category 5e patch panels
Provide (323) three hundred and twenty three Category 5e RJ45 7 foot patch cable
Provide all necessary labor to test all of the new cables to the appropriate Category 5e standard
Provide a printed copy of the scanner test results
All UTP cables, faceplates and patch panels shall be labeled
429 Total Cat5E Cables

429 Cabling Total: \$58,773.00

Prices valid for 30 days

Vertex / TekConnect has a 30 day Return Policy with Original Packing Unopened with all Components
ATL01NJ-2000 E-Rate Cabling Drops (323) & Cisco Switches - EMAIL.xls

007344

VERTEX**TECHNOLOGIES, INC.**

A TekConnect Company

Vertex Technologies Inc.
 1 Keystone Avenue, Suite 700
 Cherry Hill, NJ 08003
 Voice: (800) 354-1519 Fax: (856) 834-1111

Atlantic City Public Schools
 1809 Pacific Avenue
 Atlantic City, NJ 08401
 Attn: Martin Friedman

Proposal #: ATL01NJ-2000

January 6, 2004

Description	Qty	Price	Total
Atlantic City E-Rate Bld (Year 7)			
SLD Form #: 678310000481953			
Spin# 143011709			

Wireless Hardware & Services:**Hardware/Software: Indoor Wireless:**

Cisco Aironet 1231 - Wireless AP - 802.11b, 802.11g	106	\$670.00	\$71,020.00
w/Avail Slot For Upgrading to 802.11a - Upgrade Not Included			
Cisco 2.2dBi DiPole Access Point Antenna	212	\$17.00	\$3,604.00
Cisco Aironet 1100 and 1200 Series Power Injector	106	\$47.00	\$4,982.00

Professional Services:

Access Point Installation, Configuration, and Testing	1	\$53,000.00	\$53,000.00
Includes Project Management And Documentation			
Wireless Technical Training, 1/2 Day On-Site.	1	\$500.00	\$500.00

RADIUS Server Configuration & Data Entry Assistance	1	\$1,800.00	\$1,800.00
Includes Configuration Of IAS On One Existing Server			
Optional Secondary RADIUS Server Configuration	1	\$600.00	\$600.00

Hardware/Software: Outdoor Wireless:

Proxim Tsunami MP.11a Base Station	1	\$901.00	\$901.00
Proxim 20' Low-Loss Antenna Cable	1	\$65.00	\$65.00
Proxim 0-6Ghz Surge Arrestor	1	\$52.00	\$52.00
Proxim 10dBi Omni-Directional Outdoor Antenna	1	\$93.00	\$93.00
Proxim Tsunami MP.11a Subscriber Unit	1	\$485.00	\$485.00
Proxim 15dBi Window-Mount Antenna	1	\$59.00	\$59.00

Professional Services:

Wireless Bridge Installation, Configuration, and Testing	1	\$2,000.00	\$2,000.00
Includes Project Management And Documentation			
Installation and Configuration Of Wireless connection	1	\$240.00	\$240.00
in one (1) Remote Trailer.			

Additional copper cabling would be required to connect to any additional trailers and is NOT included in this proposal.

Wireless Technical Training, 1/2 Day On-Site.	1	\$500.00	\$500.00
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Wireless Hardware/Services Total: \$139,901.00

Prices valid for 30 days

Vertex / TekConnect has a 30 day Return Policy with Original Packing Unopened with all Components
 ATL01NJ-2000 E-Rate Cabling Drops (323) & Cisco Switches - EMAIL.xls

007345

VERTEX

Technologies, Inc.

A TelConnect Company

Vertex Technologies Inc.
1 Keystone Avenue, Suite 700
Cherry Hill, NJ 08003
Voice: (800) 354-1519 Fax: (856) 834-1111

Atlantic City Public Schools
1809 Pacific Avenue
Atlantic City, NJ 08401
Attn: Martin Friedman

Proposal #: ATL01NJ-2000

January 6, 2004

Description	Qty	Price	Total
Atlantic City E-Rate Bid (Year 7)			
SLD Form #: 678310000481953			
Spin# 143011709			

Tuesday, January 06, 2004


On-Site Service Total: \$55,250.00 ★

Equipment Total: \$37,132.00

Cabling Total: \$58,773.00

Wireless Hardware/Services Total: \$139,901.00

E-Rate Project Total: \$291,056.00

 1-22-04

Authorized Signature Date

★ This Contract is based on the District receiving a Funding Commitment Decision Letter (FCDL) from Schools and Libraries Division (SLD) of the Universal Service Administrative Company (USAC) for the requested amount. If funding is reduced, the school has the option of reducing the scope of the contract accordingly. If for any reason, funding is denied, this agreement would be null and void."

Please Mail and Fax Copy of your Purchase Order to:

Vertex Technologies
1 Keystone Ave, Suite 700
Cherry Hill, NJ 08003
Fax: 856-834-1111 Attn: Order Processing

*Product will be shipped, against a PO, as it is available and you agree to make partial payments against the PO within 30 days of receipt. Further, product needs to be paid independent of any services that are to be performed.

If you wish your order to "Ship Complete" Please Notify your account Representative

Prices valid for 30 days

Vertex / TelConnect has a 30 day Return Policy with Original Packing Unopened with all Components
ATL01NJ-2000 E-Rate Cabling Drops (323) & Cisco Switches - EMAIL.xls

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